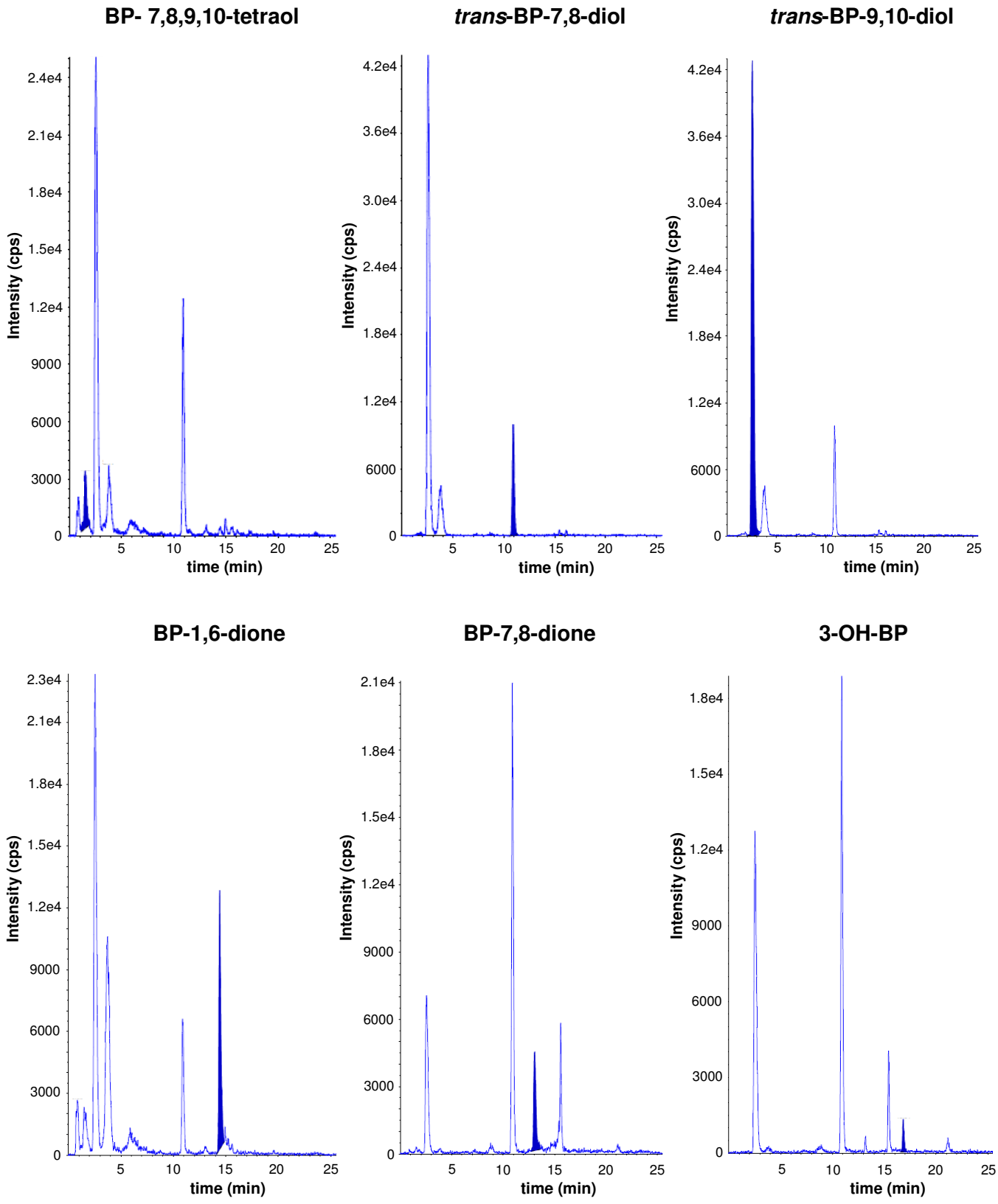
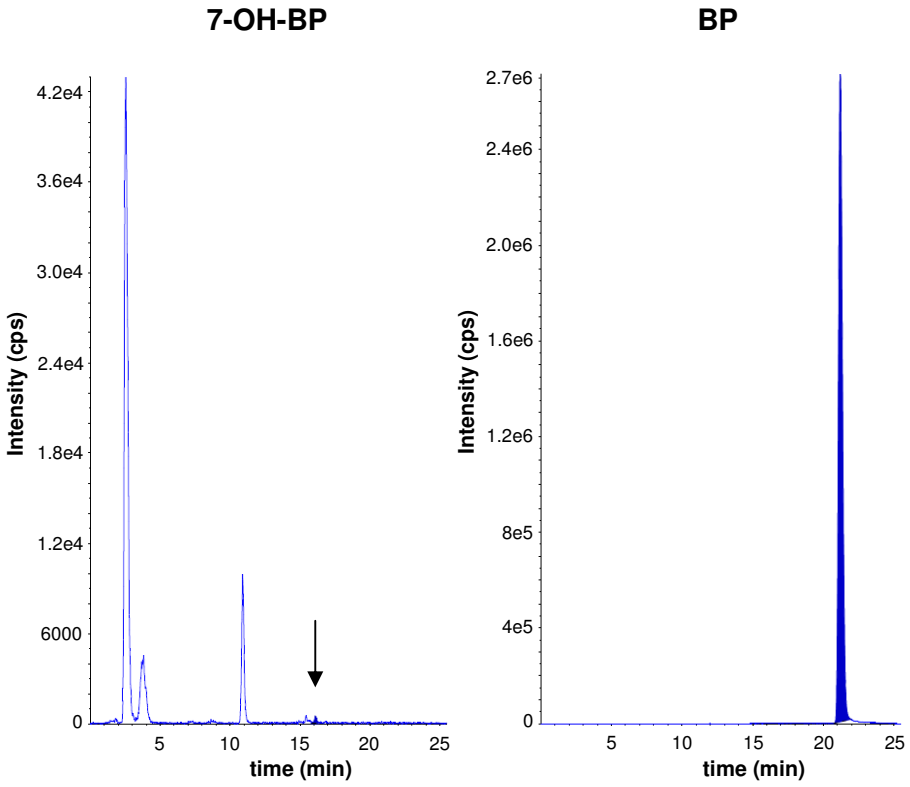
Supplementary Figure S1

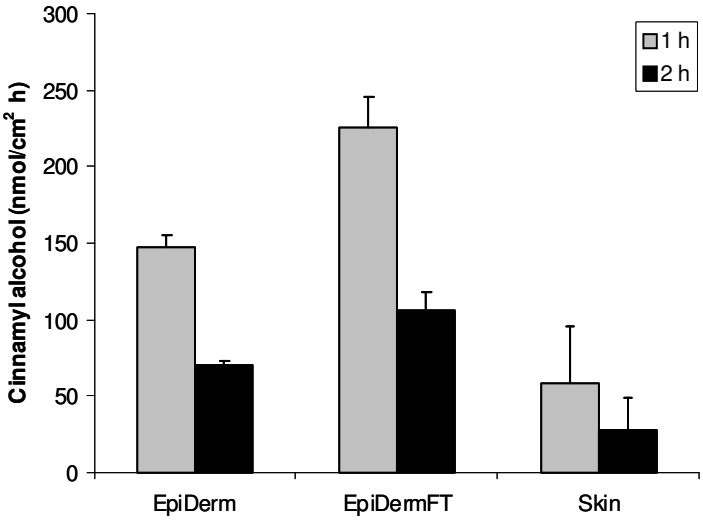
Supplemental Figure S1. Examples of peak detection in biological probes. Examples of detected and quantified BP metabolite peaks in skin models are marked in blue and shown for each of the analyzed BP derivatives.



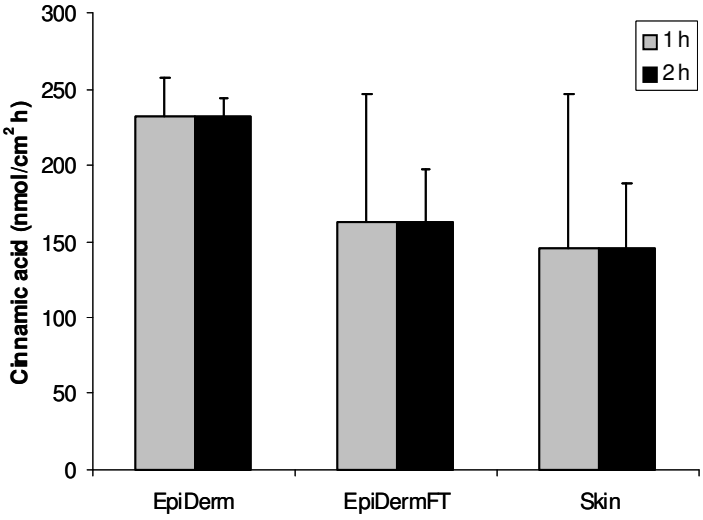

7-OH-BP
BP
Intensity (cps)
4.2e4
3.6e4
3.0e4
2.4e4
1.8e4
1.2e4
6000
0
5
10
15
20
25
time (min)
2.7e6
2.4e6
2.0e6
1.6e6
1.2e6
8e5
4e5
0

Supplementary Figure S2

A



B



Supplementary Figure S2. The metabolic capacity toward cinnamic aldehyde in MatTek *in vitro* 3D skin models is comparable to human skin. (A) Rates of cinnamic aldehyde conversion into cinnamic alcohol in the MatTek EpiDerm and EpiDerm full-thickness model compared to the rate in human dermatomized skin. (B) Rates of cinnamic aldehyde conversion into cinnamic acid in skin models and skin. All 3 models were topically exposed to cinnamic aldehyde (1 µmol/cm^2) diluted in DMSO. Metabolite levels were determined by HPLC after incubation for 1 and 2 h, essentially as described elsewhere (Smith *et al.*, 2001). This figure displays the sum of metabolites detected in both incubation media and LiberaseFT-digested tissue homogenates (n=3; obtained with 3 different batches/donors, mean ± SD). After cinnamic aldehyde exposure for 1 h the overall recovery was found at 96, 82, and 85% of the initially applied dose for EpiDerm, EpiDermFT and skin *ex vivo*, respectively.